

1.(Currently Amended) An electrostatic discharge (ESD) protective structure that protects an integrated semiconductor circuit connected between a first potential bus with a first supply potential (VCC) and a second potential bus with a second supply potential (VSS), said electrostatic discharge protective structure comprising:

an laterally formed electrostatic discharge diode having a first region doped with a first conduction type and a second region, spaced apart from said first region;

said second region being doped with a doped-second conduction type, wherein said electrostatic discharge protective structure is located between the first and second potential busses and drains off an overvoltage pulse to one of the first and second potential busses, wherein said laterally formed electrostatic discharge diode includes a gate electrode located between said first region and said second region, said first region being separated from said second region by a distance that is equal to a width dimension of the gate electrode, where said gate electrode and said second region are both connected to the second supply potential.

2.(Original) The electrostatic discharge protective structure of claim 1, wherein said protective structure includes a semiconductor body having a surface in which said first region and said second region are embedded, wherein said first region is connected via a first electrode to the first potential bus, and said second region is connected via a second electrode to the second potential bus.

3.(Original) The electrostatic discharge protective structure of claim 2, wherein said semiconductor body includes charge carriers of the second conduction type, and said gate electrode and said second electrode are connected to said second potential bus.

4.(Original) The electrostatic discharge protective structure of claim 2, wherein said semiconductor body includes charge carriers of the first conduction type, and at least one well of the second conduction type is embedded in said semiconductor body, and said first and second regions are embedded in said well.

5.(Previously Presented) The electrostatic discharge protective structure of claim 4, wherein said second region laterally encloses said first region.

6.(Currently Amended) The electrostatic discharge protective structure of claim 4, wherein the integrated semiconductor circuit is configured and arranged as an MOS or CMOS circuit.

7.(Original) The electrostatic discharge protective structure of claim 2, comprising a gate dielectric that spaces said semiconductor body at a distance from the gate electrode.

8.(Original) The electrostatic discharge protective structure of claim 7, wherein said gate dielectric contains silicon dioxide and said gate electrode contains polysilicon.

9.(Canceled)

10.(Canceled)

11.(Canceled)

12.(Canceled)

13.(Currently Amended) An integrated circuit with electrostatic discharge protection, said integrated circuit comprising:

a circuit to be protected; and

an electrostatic discharge device that is disposed electrically parallel to said circuit to be protected between first and second voltage busses, wherein said electrostatic discharge device includes an laterally shaped electrostatic discharge diode including

- (i) a first region doped with a first conduction type material within a substrate;
- (ii) a second region doped with a second conduction type material within said substrate; and
- (iii) a gate electrode having a width W and located between said first and second regions such that said first and second regions are separated by the width W, where said gate electrode and said second region are both connected to the same electrical potential.

14.(Original) The integrated circuit of claim 13, comprising a gate oxide disposed on said substrate between said first and second conduction regions and underlying said gate electrode.

15.(Original) The integrated circuit of claim 14, comprising a first electrode disposed on said substrate overlaying said first region, and a second electrode disposed on said substrate overlaying said second region, wherein said first electrode is connected to the first voltage bus and said second electrode is connected to said second bus.

16.(Currently Amended) An integrated circuit with electrostatic discharge protection, said integrated circuit comprising:

a circuit to be protected; and

an electrostatic discharge device that is disposed electrically parallel to said circuit to be protected between first and second voltage busses, wherein said electrostatic discharge device includes an laterally shaped electrostatic discharge diode including

(i) a first doped region doped with a first conduction type material within a substrate;

(ii) a first electrode in communication with said first doped region, said first electrode being coupled to the first voltage bus;

(iii) a second doped region doped with a second conduction type material within said substrate;

(iv) a second electrode in communication with said second doped region, said second electrode being coupled to the second voltage bus;

(v) an insulator located between said first and second electrodes, and having an insulator dimension that is equal to the distance between said first and second regions; and

(vi) a gate electrode in communication with and contiguous with said insulator and having a width equal to the width separating the first doped region and the second doped region, where said gate electrode is also connected to said second voltage bus.

17.(Previously Presented) The integrated circuit of claim 16, wherein said insulator includes an oxide.

18.(Currently Amended) The integrated circuit of claim 17, wherein said oxide comprises silicon

dioxide.

19.(New) The integrated circuit of claim 1, wherein said electrostatic discharge diode is laterally formed.

20.(New) The integrated circuit of claim 13, wherein said electrostatic discharge diode is laterally formed.

21.(New) The integrated circuit of claim 16, wherein said electrostatic discharge diode is laterally formed.